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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,233	02/14/2001	George T. Spitz	390533	1553

7590

08/09/2005

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EXAMINER

TOOMER, CEPHIA D

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/783,233

Applicant(s)

SPITZ ET AL.

Examiner

Cephia D. Toomer

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office action is in response to the Appeal Brief filed May 9, 2005.

The finality of the prior Office action is withdrawn in view of the newly discovered references. Applicant's arguments presented in the Appeal Brief are moot in view of the newly discovered prior art.

1. In claim 8, "when said" should be deleted.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dijk in view of Hill.

Dijk teaches technical crosslinkers of the hexamethoxymethyl melamine type (HMMM) (see summary page 326). Dijk teaches that HMMM is prepared reacting melamine and formaldehyde under slightly alkaline conditions to form HMM. HMM is methoxylated with methanol to form HMMM. These reactions lead to a monomeric component and oligomeric components with a total of at least 30 different components present in a technical HMMM product (see page 327, last paragraph; page 328, text and chart). The main functional groups of HMMM are  $>\text{NCH}_2\text{OCH}_3$ ;  $>\text{NHCH}_2\text{OH}$ ;  $>\text{NH}$ ;  $\text{N}(\text{CH}_2\text{O})_2\text{CH}_3$  and  $>\text{NHCH}_2\text{OCH}_2\text{N}<$  (oligomerized). See Table 1, page 329. Figs 3

Art Unit: 1714

and 5 set forth the components of HMMM. Dijk teaches that a small amount of the >NH groups, <0.4, is detected in the HMMM resins (see conclusion #1, page 340). This teaching suggests less than 0.2 % imino. Dijk teaches the limitations of the claims other than the differences that are discussed below.

Dijk fails to teach the proportions of the monomer and oligomer. However, Hill teaches that HMMM type resins contain about 62% monomer, 23 % dimer and 15 % trimer and higher oligomers. The resins contain low levels of >N(CH<sub>2</sub>OCH<sub>3</sub>)H. See page 64, text beginning at line 2 and ending at line 8.

It would have been obvious to one of ordinary skill in the art to prepare a crosslinker composition comprising 50-90% monomeric alkoxymethyl melamine derivative and 5 to 50% oligomeric alkoxymethyl melamine derivative because Hill teaches that these resins normally contain these components in the claimed proportions.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dijk and Hill as applied to claims above, and further in view of Chu.

Dijk and Hill have been discussed above. Dijk fails to teach that a mixture of methoxymethyl and higher alkoxymethyl groups are attached to pendant nitrogen atoms. However, Chu teaches that this is a common occurrence in HMMM resins having very low levels of >NH. See second paragraph of introduction; first paragraph under heading MF resins (page 44).

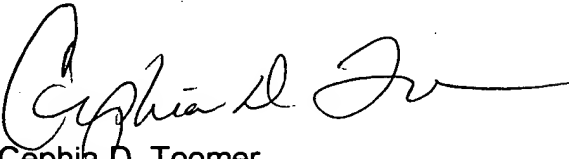
Art Unit: 1714

It would have been obvious to one of ordinary skill in the art to use a mixture of methoxymethyl groups and higher alkoxymethyl groups because HMMM resins with low >NH content can be alkoxylated with other alcohols in addition to methanol.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Cephia D. Toomer  
Primary Examiner  
Art Unit 1714

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